

CLAIMS

1. A substrate machining method for machining a substrate, comprising the step of
cutting the substrate from its one surface
5 as a disk-like blade is rotated; and
irradiating with laser light the edge of a cut surface, of the substrate, that is located in the vicinity of the other surface.

2. A substrate machining method according to claim 10 1, wherein the entirety of the cut surface of the substrate is irradiated with the laser light.

3. A substrate machining method according to claim 1 or 2, wherein the laser is a YAG laser or a CO₂ laser.

4. A substrate machining method according to claim 15 1, wherein a dicing tape is adhered to the other surface of the substrate; and the laser light is irradiated after cutting only the substrate and expanding the dicing tape.

5. A substrate machining method according to claim 20 1, wherein the laser light is irradiated onto a street that has been already formed and is different from a street being formed by cutting the substrate by the disk-like blade.

6. A substrate machining method according to claim 25 1, wherein the laser light is irradiated onto a street, that is being formed by cutting the substrate by the disk-like blade, while following the movement of the disk-like blade.

7. A substrate machining apparatus for machining a substrate, comprising

30 a disk-like blade that is rotated to cut the substrate from its one surface; and

a laser light irradiating portion for irradiating a laser light to the portion, of a cut surface of the substrate, that is located in the vicinity
35 of the other surface of the substrate.

8. A substrate machining apparatus according to claim 7, wherein the laser light irradiating portion can

irradiate the laser light onto the entirety of the cut surface of the substrate.

- 5 9. A substrate machining apparatus according to claim 7 or 8, wherein the laser light irradiating portion is a YAG laser light irradiating portion or a CO₂ laser light irradiating portion.